NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Enhancing Decision-Making through Integrated Climate Research:
Alaska Region Meeting
Sponsored by
Regional Integrated Sciences and Assessments (RISA) Program
NOAA/Office of Global Programs (OGP), Silver Spring, MD

Co-Sponsored by: National Weather Service-Alaska Region, USGS-Alaska Science Center, & National Park Service-Alaska Region

Concurrent Breakout Sessions:
Identification of "tractable" areas for integrated research

Session 1: **Climate and Human Health Risks** / *Facilitator: Suzanne Marcy, US EPA*

EASTER ISLAND ROOM

Session 2: **Climate Links to Regime Shifts: Aquatic and Terrestrial Ecosystems** / *Facilitator: James Overland, NOAA/PMEL*

RESOLUTION ROOM

Session 3: **Climate Influences on Rural/Native Subsistence** / *Facilitator: Judy Gottlieb, NPS-Alaska Region*

QUADRANT ROOM

Session 4: **Transportation, Infrastructure & Safety: Climate Adaptation Concerns/Strategies** / *Facilitator: Gary Hufford, NWS-AK*

ADVENTURE ROOM

Session 5: **Observations & Data Management/Integration: Critical Links to Decision-making** / *Facilitator: Molly McCammon, AK Ocean Observing System*

VOYAGER ROOM

Questions For The Concurrent Breakout Sessions:
Identification of "tractable" areas for integrated research

A note for all breakout session participants please consider the questions in terms of:

1. **The range of climate activity from seasonal to climate change**
2. **Try to consider the questions in terms of integrated (i.e. systematic multi-disciplinary research) rather than only from a single discipline perspective wherever possible.**

Session 1: **Climate and Human Health Risks** / *Facilitator: Suzanne Marcy, US EPA*

1. What are the key climate/health risk issues of concern to decision-makers[1] (for example public health officials, medical personnel, the general public) at the:
    a. Intra-seasonal to seasonal level
    b. Decadal and;
    c. Long term
2. Are there special areas of concern for rural/native communities?
3. Which of these issues have established physical and social science links between climate and health versus suspected links?
4. Are there climate/health risk issues that the physical and social scientific communities are aware or suspect exist that the general public are not considering?
5. What are the key gaps in the physical and social scientific knowledge bases that need to be further studied to better link climate to health risks?
6. Are there any data constraints?
7. In terms of ranking which of the climate/health issues have the greatest chance of being addressed in an integrated manner by the scientific community while being most relevant to decision-makers (Try to select no more than a maximum of 5 issues)

[1] Decision-makers covers a wide range of individuals, groups, and institutions, for example under health decision-makers can include public health officials, environmental regulators, native health program managers, medical personnel, health insurance, and the general public. In a second example, decision-makers in the aquatic and terrestrial ecosystems session could be public officials and regulators, the private sector, general public, and not for profit organizations. The key point is that decision-makers utilize climate information to make decisions about the allocation of resources, protect life, or craft or implement regulations.

Session 2: **Climate Links to Regime Shifts: Aquatic and Terrestrial Ecosystems** / *Facilitator: James Overland, NOAA/PMEL*

1. What are the key climate/ecosystem regime shift issues of concern to decision-makers at the:
    a. Intra-seasonal to seasonal level
    b. Decadal and;
    c. Long term
2. Which of these issues have established physical and social science links between climate and ecosystems versus a suspected link?
3. Are there climate/ecosystem impact issues that the physical and social scientific communities are aware or suspect exist that the general public is not considering?
4. What are the key gaps in the scientific knowledge base that need to be further studied to better link climate to ecosystem impacts?
5. Are there any data constraints?
6. In terms of ranking which of the climate/ecosystem issues have the greatest chance of being addressed by the scientific community while being most relevant to decision-makers (Try to select no more than a maximum of 5 issues)

Session 3: **Climate Influences on Rural/Native Subsistence** / *Facilitator: Judy Gottlieb, NPS-Alaska Region & Terry Chapin, UAF*

1. What are the key climate/rural/native subsistence issues of concern to decision-makers at the:
    a. Intra-seasonal to seasonal level
    b. Decadal and;
    c. Long term
2. Which of these issues have established physical and social science links between impacts on rural and native subsistence versus suspected links?
3. Are there climate/subsistence impact issues that the physical and social scientific communities are aware or suspect exist that the general public is not considering?
4. What are the key gaps in the scientific knowledge base that need to be further studied to better link climate to subsistence impacts?
5. Are there any data constraints?
6. In terms of ranking which of the climate/subsistence issues have the greatest chance of being addressed by the scientific community while being most relevant to decision-makers? (Try to select no more than a maximum of 5 issues)

Session 4: **Transportation, Infrastructure & Safety: Climate Adaptation Concerns/Strategies** / *Facilitator: James Partain, NWS-AK*

1. What are the key climate/transportation issues of concern to decision-makers at the:
    a. Intra-seasonal to seasonal level
    b. Decadal and;
    c. Long term
2. Which of these issues have established physical and social science links between climate impacts on transportation versus suspected links?
3. Are there climate/transportation impacts and planning issues that the physical and social scientific communities are aware or suspect exist that the general public is not considering?
4. What are the key gaps in the scientific knowledge base that need to be further studied to better link climate to transportation impacts and planning?
5. Are there any data constraints?
6. In terms of ranking which of the climate/transportation issues have the greatest chance of being addressed by the scientific community while being most relevant to decision-makers? (Try to select no more than a maximum of 5 issues)

Session 5: **Observations & Data Management/Integration: Critical Links to Decision-making** / *Facilitator: Molly McCammon, AK Ocean Observing System*

1. What are the key climate/data of concern to decision-makers at the:
    a. Intra-seasonal to seasonal level
    b. Decadal and;
    c. Long term
2. Are there climate/data issues that the physical and social scientific communities are aware or suspect exist that the general public is not considering?
3. What are the key gaps in the scientific knowledge base that need to be further studied to better link climate data to decision-making?
4. What can improvements in observation capacity in Alaska do to contribute to our understanding of the impact of climate variability and change on decision-makers, their activities, and their environment?
5. How can observations or data collection and assimilation in Alaska be relevant to our understanding of the larger climate and ocean circulation systems?
6. In terms of ranking which of the climate/data issues have the greatest chance of being addressed by the scientific community while being most relevant to decision-makers (Try to select no more than a maximum of 5 issues)